

1890-0066

REMARKS

I. Status of the Application

Claims 14-21 are pending in this application. In the March 8, 2006 Office action, the Examiner (i) objected to the drawings because of informalities; (ii) objected to claim 14 because of an informality, and (iii) rejected claims 14-21 under 35 U.S.C. § 103(a), as allegedly being unpatentable over prior art disclosed by Applicant in FIG. 1B of the patent application (hereinafter "AAPA") in view of U.S. Patent No. 5,094,956 to Ozaki et al. (hereinafter "Ozaki").

In this response, Applicant (i) submits replacement drawings to overcome the Examiner's objection to the drawings; (ii) has amended claim 14 to overcome the Examiner's objection; and (iii) traverses the Examiner's rejection of claims 14-21 under 35 U.S.C. § 103(a).

II. The Examiner's Rejection of Claim 14-21 Under 35 U.S.C. § 103(a) Should beWithdrawnA. Applicant's Claim 14

With respect to claim 14, it is respectfully submitted that the Examiner has failed to make a prima facie case of obviousness because all claim limitations are not shown in AAPA and Ozaki. In order to establish a prima facie case of obviousness, all the claim limitations must be taught or suggested by the prior art. MPEP § 2143.03. "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d. 1382 (CCPA 1970).

One example of a limitation of claim 14 shown in neither AAPA nor Ozaki is that of a metallization layer with "the portion covering the side face of the gate facing the drain area terminating at an end displaced from the substrate by a predetermined displacement" (*emphasis*

1890-0066

added). Claim 14 does not simply state that the shielding provided to the gate at the side facing the drain is somehow displaced from the substrate. Instead, the claims clearly indicate that the shielding is displaced from the substrate by a predetermined displacement. Indeed, the present application describes certain advantages realized by setting this specific displacement to a predetermined value. In particular, advantageous effects on the properties of the semiconductor device are seen, such as reduction of the feedback capacity, as described in the present application with reference to Figs. 5 and 6, and the increase in the maximum stable gain, as described in the present application with reference to Fig. 7.

In the March 8, 2006 Office action, the examiner states that AAPA teaches a metallization layer wherein "the portion covering the side face of the gate facing the drain area D terminating at an end displaced from the substrate 10 by a predetermined displacement DELTA." (See March 8, 2006 Office action, page 3). It is respectfully submitted that this limitation of a predetermined displacement is not shown in AAPA. All that is described in Fig. 1B of the present application is that the shielding does not contact the drain area to avoid short circuiting the drain and the source regions of the semiconductor device. Thus, the basic teaching that may be derived from Fig. 1B is to provide a spacing between the drain area and the shield in order to avoid a short-circuit at this portion of the device. However, nothing is described with regard to the possibility of improving the properties of the semiconductor device by selecting a predetermined displacement, such as between 500 nm and 250 nm, as described in the present application. Advantages associated with the claimed "predetermined displacement" are discussed in the present application on pages 10-12, and are not associated with the prior art.

Because neither AAPA nor Ozaki disclose a metallization layer with "the portion covering the side face of the gate facing the drain area terminating at an end displaced from the

1890-0066

substrate by a predetermined displacement," claim 14 can not be considered obvious in view of the prior art. Accordingly, the examiner's rejection of claim 14 should be withdrawn.

B. The Examiner's Rejection of Claims 15-21 Under 35 U.S.C. § 103(a) Should be Withdrawn

In the March 8, 2006 Office action, the Examiner rejected dependent claims 15-21 under 35 U.S.C. § 103(a). Each of these claims depends from and incorporates all of the limitations of one of independent claim 14. As set forth above, the examiner's rejection of claim 14 should be withdrawn. Therefore, because each of dependent claims 15-21 depend from and incorporate all of the limitations of claim 1, the Examiner's rejection of dependent claims 15-21 should also be withdrawn for at least the same reasons.

In addition to the above, claims 15-21 are allowable for additional reasons. For example, claim 18 is allowable for the additional reasons set forth below. Claims 15-17 and 19-21 are also allowable for similar independent reasons.

C. The Examiner's Rejection of Claim 18 Under 35 U.S.C. § 103(a) Should be Withdrawn

Claim 18 includes the limitation that the "predetermined displacement is set to be between about 250 nm and about 500 nm." In rejecting applicant's claim 18 the examiner stated, "where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." The examiner then concluded that "it would have been obvious to set a predetermined displacement DELTA of

1890-0066

AAPA in a range as claimed because the predetermined displacement DELTA can be optimized during routine experimentation."

With respect to claim 18, Applicant respectfully notes that "a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognizable result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977). Accordingly, if a particular optimized parameter is not recognized in the art to be a result-effective variable, determination of the optimum ranges of said variable can not be characterized as "routine experimentation". See MPEP § 2144.05.

In the present application, the inventors discovered that setting the specific displacement of claim 18 to a predetermined value has advantageous effects on the properties of the semiconductor device. Those advantageous effects include reduction of the feedback capacity, as disclosed with reference to Figs. 5 and 6 of the present application, and increase in the maximum stable gain, as disclosed with reference to Fig. 7 in the present application. Applicant respectfully submits that this particular parameter of displacement was not recognized in the prior art to be a "result-effective variable", and therefore determination of the optimum ranges of said variable can not be characterized as "routine experimentation." Accordingly, the examiner's stated rationale for rejecting claim 18 is improper under MPEP § 2144.05, and the examiner's rejection of claim 18 should be withdrawn.

1890-0066

IV. Conclusion

For all of the foregoing reasons, it is respectfully submitted the Applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

Respectfully submitted,



Russell E. Fowler II
Attorney for Applicants
Attorney Registration No. 43,615
Maginot Moore & Beck LLP
Chase Tower
111 Monument Circle, Suite 3250
Indianapolis, Indiana 46204
Telephone: (317) 638-2922

Enclosures: Replacement Sheets for Figs. 1A and 1B